



COCHISE COUNTY

COMMUNITY DEVELOPMENT

"Public Programs...Personal Service"

MEMORANDUM

TO: Board of Supervisors
THROUGH: Michael Ortega, County Administrator
FROM: Beverly Wilson, Planning Director
SUBJECT: Docket R-14-03 (Amendments to Currently Adopted Building Code)
DATE: December 20, 2013, for the January 7, 2014, Board of Supervisors Meeting

I. NATURE OF REQUEST

At their initial meeting, held September 25, 2013, the Cochise County Building Code Advisory and Appeals Board voted to send forward their recommendations for approval of two amendments to the currently adopted Cochise County Building Code. The first recommendation for consideration is to specifically amend the adopted 2003 International Fire Code by changing the calculations of total square footage of a single family home by exempting garages and other non-living areas prior to requiring the installation of fire sprinkler systems. The second recommendation specifically will amend both the International Residential Code (IRC) and the International Building Code (IBC) to increase the size of a storage shed requiring a building and/or zoning permit from 120-square feet to 200-square feet.

II: BACKGROUND

Fire Sprinklers

While the obvious intent of requiring fire sprinklers in single family dwellings is to protect the inhabitants, they are not intended to produce a volume of water to extinguish the fire; however, sprinklers give residents the time needed to escape a home fire. The National Fire Protection Agency (NFPA) estimates that "US fire departments responded to an average of 366,600 home structure fires per year during the five-year period of 2007 – 2011. These fires caused an estimated average of 2,570 civilian deaths, 13,210 civilian injuries, and \$7.2 billion in direct property damage per year. Almost three quarters (71%) of the reported home structure fires and 84% of the home fire deaths occurred in one- or two-family homes, including manufactured homes." (<http://www.firesprinklerinitiative.org>). These statistics certainly indicate the need for some type of fire protection and the safety concerns involved.

The 2009 International Residential Code Commentary states the following: "Ongoing studies have shown that most fires in residential buildings have a high probability of occurring in the living areas and at locations of fuel-fired equipment. The installation of sprinklers beyond those

rooms and locations offers only a minimal increase in safety since fires rarely begin in those areas. Note that garages and carports are not required to have sprinklers even though, statistically, there is a moderate probability of fire occurrence in those areas. There are several reasons for this exception: (1) dwelling units are required to be fire protected from attached garages by the application of gypsum board to the garage wall (and ceiling, in most cases), and (2) unheated garages are difficult to protect with a sprinkler system that does not allow the use of antifreeze or preaction-type sprinklers.”

Staff realizes that increased square-foot cost to the construction of a residential dwelling unit is the result of meeting this code. Because many of the larger custom homes in Cochise County rely on wells for their water supply, they lack the required water pressure needed to properly operate fire sprinkler systems. To mitigate the lack of adequate water pressure when supplied by a water company, these rural homes must install costly water tanks with sufficient flow and pressure to meet the fire code. The issue of a lack of water flow and pressure to supply these sprinkler systems, as well as the increase in square-foot cost, was the basis of the recommendations from the Construction community for staff to address the need for all areas of a single family dwelling to be protected from a fire sprinkler system.

In a recent survey, it was found that both Sierra Vista and Benson have addressed this issue in different ways. Sierra Vista has adopted the 2012 codes with amendments (Attachment A) which excluded garages and porches in the calculation of the living space for sprinkler requirements, but still use the 3,600-square foot size limit.

Benson amended their Fire Code to exclude a single family residence (Attachment B).

Cochise County, in December of 2004, adopted the 2003 IFC, Section B105 of Appendix B, in which those dwelling units greater 3,600-square foot are required to have residential fire sprinkler systems installed. This requires garages, outside patios, and storage spaces to be sprinkled with a system. Staff has looked at the language in the 2009 IFC, which was amended to read as follows:

1. Attics, crawl spaces and normally unoccupied concealed spaces that do not contain fuel-fired appliances do not require sprinklers. In attics, crawl spaces, and normally unoccupied concealed spaces that contain fuel-fired equipment, a sprinkler shall be installed above the equipment; however, sprinklers shall not be required in the remainder of the space.
2. Clothes closets, linen closets, and pantries not exceeding 24-square feet (with the smallest dimension not greater than 3-feet and having wall and ceiling surfaces of gypsum board.
3. Bathrooms not more than 55-square feet in area.
4. Garages; carports; exterior porches; unheated entry areas, such as mud rooms, that are adjacent to an exterior door; and similar areas.

It is the recommendation of staff, that a simple statement such as: **“Fire flow calculation area for R-3 Residential uses shall include only the living area of the structure and shall exclude garages, storage uses other than closets, and exterior porches”** be considered to meet minimum safety standards for single family homes. As stated above, the Building Code Advisory and Appeals Board agreed with Staff’s recommendation and voted to send this forward to the Board of Supervisors with a recommendation for approval.

Storage Sheds

This is a request to amend the IRC and the IBC, Sections 105.2.1, to increase the current maximum square-footage of sheds (defined as one-story detached accessory structures with no utilities) from 120-square feet to 200-square feet before requiring a building and/or zoning permit. Staff has received many applicant generated complaints from the public regarding various permit requirements for small storage sheds. These types of structures are sold by Home Depot, Lowes, and Sutherlands in Sierra Vista, and available from many similar retail outlets in Tucson. Many times, these smaller sheds are constructed off-site, and delivered to residential sites throughout the county. After discussion, the Building Code Advisory and Appeals Board agreed to forward a recommendation for approval to amending both sections of the adopted Cochise County Building Code to relieve the permitting requirements for the public. While a building permit and/or a zoning permit may not be required for these structures, it should be noted that the Floodplain Regulations recently adopted by Cochise County do require a permit for accessory structures found in a regulated flood plain (Attachment 1).

III: RECOMMENDATIONS

Fire Sprinklers: The Building Code Advisory and Appeals Board is sending a recommendation of approval to the Board of Supervisors for amending the language of the 2003 IFC, Section B104.1 General, by adding: **“Fire flow calculation area for R-3 Residential uses shall include only the living area of the structure and shall exclude garages, storage uses other than closets, and exterior porches.”**

The Building Code Advisory and Appeals Board is also forwarding a recommendation for approval to the Board of Supervisors to amend the language of the 2003 IRC and the 2003 IBC, Sections 105.2.1 (which defines those structures exempt from the code) to read: **“One-story detached accessory structures with no utilities provided the floor area does not exceed 200-Square-Feet”**.